**Amendments to the Specification:**

Please amend the paragraph at page 6, lines 6-18 as follows:

One exemplary system in accordance with the invention is shown at **22** in Fig. 1. The system includes a microfluidics device **24** having formed therein one or more channel networks, such as network **25** composed of a separation microchannel **26** having, in an upstream to downstream direction, an upstream channel region **27**, a sample-volume channel region **28**, and a downstream separation channel region **30**. The sample-loading region is defined, at its upstream end, by a first side channel **32** and a second side channel **34**, which intersect the separation channel at first and second junctions. The length of the sample-loading region *d* is measured as the distance between a first-channel region adjacent the upstream side of the first channel, and a second-channel region adjacent the downstream side of the second channel, as shown. The downstream separation region has a length *d'*, as indicated. In preferred embodiments of the invention, the ratio of the lengths of the sample-loading ~~volume~~ region to the downstream separation region in the device, *d:d'*, is between about 1:500 to 1:1.

Please amend the paragraph at page 13, lines 6-15 as follows:

The concentrations of the electrolyte solutions are generally ~~be~~ in the range of about 0.1 to 1,000 mM, more usually in the range of about 1 to 50 mM. The sample concentration may also vary widely, depending on the nature of the sample, the number of components, the ease with which they can be separated, etc. Generally, the total concentration of the components of the sample to be assayed will be in the range of about 0.1pM to 1 μM, although higher concentrations, up to about 100 μM, can also be assayed. The concentration of high mobility ion added to the sample (for "back stacking") or, alternatively, the background electrolyte (for "front stacking"), is preferably in the range of about 1 to 100 mM, more preferably about 20 to 35 mM, and is typically comparable to or greater than the buffer (background) ion concentration.